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A. D. MELVIN, CHIEF OF BUREAU.

A SIMPLE METHOD OF KEEPING CREAMERY RECORDS.

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Investigation has shown that there has been a decrease in the number of creameries in some localities, and that this was in part due to the lack of knowledge on the part of buttermakers and secretaries of the proper manner of keeping records.

In most other lines of business an ordinary set of books may be used for keeping the records of transactions, and usually the business is large enough to justify the employment of an experienced bookkeeper. In the creamery business, however, is quite different, as special forms and record books are needed, and in but few instances is the business large enough to afford a bookkeeper. This is especially true in regard to the cooperative creameries where a member of the creamery company is elected secretary, whose duty it is to keep the records. As a rule such secretaries have not had the training necessary to enable them to arrange a set of books especially adapted for creamery use, and as no special system is available on the market each secretary usually undertakes to devise one of his own, which may be incomplete and understood by him only.

The Dairy Division, realizing that there is little uniformity in keeping records at creameries, has arranged a system of blanks which may be used for models in ruling books. Common record books with pages about 9 by 14 inches, with 36 lines, may be used and can be ruled by hand in a short time.

The blanks are simple and require but little explanation. The heading in each column indicates what entries are to be made. Forms 1, 2, 3, 4, 5, and 6 are to be kept by the buttermaker or under his supervision, while Forms 7, 8, 9, and 10 are to be kept by the secretary.

The explanation printed with each form will serve as an additional guide for its use. However, the attention of buttermakers and secretaries is especially called to Forms 3 and 4. A buttermaker should

know every day the number of pounds of milk and cream delivered to him, the test of the milk and cream, the pounds of butterfat in each, and the total pounds of butterfat received for the day and what is done with it. If milk and cream are sold, the pounds of butterfat thus sold should be properly recorded on Form 4. The pounds of butterfat to be made into butter should also be recorded on the same form. When the butter is churned, weighed, and tested for moisture, the pounds and the percentage of overrun should be calculated, and the percentage should not be less than 18.5 in whole-milk creameries and 20 per cent in hand-separator creameries. When all these details are recorded, the buttermaker will know the results of his work. Both the buttermaker and the secretary should be able to show an accurate and detailed record of all their work and the status of the business at any time.

Form 1, the milk and cream sheet, may be purchased from dairy supply houses; Forms 3 and 4 may be ruled in one book, and Form 6 put in pads; Forms 2 and 5 represent separate books. Form 7 should be a separate book, but Forms 8, 9, and 10 may be ruled in the same book—Form 8 requiring 12 double pages, while Forms 9 and 10 require but one double page each for a year. Therefore five books would be required—three for the buttermaker and two for the secretary. Forms 2 and 7 should be replaced each year, while the rest will last for years.

#### MILK AND CREAM SHEETS.

Form 1 (for Buttermaker).

This form represents the ordinary milk and cream sheet, which can be secured from the supply houses in loose sheets.

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Form 1.—Milk and cream sheet for \_\_\_\_\_, 190—.

Date.	Name and No. of patrons.																																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	
1																																				
2																																				
3																																				
4																																				
5																																				
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7																																				
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10																																				
11																																				
12																																				
13																																				
14																																				
15																																				
Total																																				

## TEST BOOK.

Form 2 (for Buttermaker).

It is recommended that a book be used which can be ruled the same as the form below, so that a record of all the tests may be preserved for reference. This is preferable to a loose sheet, which may be lost or destroyed.

Form 2.—*Test sheet for* ———, 190—.

Jar No.	No. test bottle.	Test.	Jar No.	No. test bottle.	Test.	Jar No.	No. test bottle.	Test.	Jar No.	No. test bottle.	Test.
1			37			73			109		
2			38			74			110		
3			39			75			111		
4			40			76			112		
5			41			77			113		
6			42			78			114		
7			43			79			115		
8			44			80			116		
9			45			81			117		
10			46			82			118		
11			47			83			119		
12			48			84			120		
13			49			85			121		
14			50			86			122		
15			51			87			123		
16			52			88			124		
17			53			89			125		
18			54			90			126		
19			55			91			127		
20			56			92			128		
21			57			93			129		
22			58			94			130		
23			59			95			131		
24			60			96			132		
25			61			97			133		
26			62			98			134		
27			63			99			135		
28			64			100			136		
29			65			101			137		
30			66			102			138		
31			67			103			139		
32			68			104			140		
33			69			105			141		
34			70			106			142		
35			71			107			143		
36			72			108			144		

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## RECORD OF CREAM RECEIVED FROM STATIONS OR HAULERS.

Form 3 (for Buttermaker).

Creameries which send out haulers to collect cream, or have stations, should keep a detailed record of all transactions, as shown on Form 3. The greatest losses are sustained by the creameries which have stations or haulers.

A sheet in a book ruled the same as this form is sufficient for keeping the record of a station or hauler for an entire month, and will show the losses or gains of each station or hauler every day in the month.

This form is considered very important and should be generally used.

FORM 3.—*Buttermaker's record of cream received from stations or haulers.*

Route No. ....

(Name of hauler or station.)

Date.	Creamery weights of cream. <sup>a</sup>	Creamery test. <sup>b</sup>	Pounds of butterfat received. <sup>c</sup>	Haulers' weights. <sup>d</sup>	Haulers' butterfat. <sup>e</sup>	Haulers' pounds of cream short.	Haulers' pounds of fat short.	Haulers' pounds of cream over.	Haulers' pounds of fat over.	Price of butter per pound. <sup>f</sup>	Haulers' short, dollars. <sup>g</sup>	Haulers' over, dollars. <sup>h</sup>
Jan. 1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
23	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
24	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
26	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
27	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
28	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
29	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

<sup>a</sup> Enter in this column the weights of cream actually delivered at the creamery as weighed by the buttermaker.

<sup>b</sup> Enter in this column the test of the cream as determined by taking a sample from the load after the cream is mixed together.

<sup>c</sup> Enter in this column the pounds of butterfat as determined by multiplying the pounds of cream by the test as given in the two preceding columns.

<sup>d</sup> Enter in this column the total weights as taken from the drivers' (or station operators') daily report.

<sup>e</sup> Enter in this column the total butterfat as computed from the drivers' weights and samples; if from station, the operators' daily report.

<sup>f</sup> Enter in this column the approximate price of butter on the day the record is made.

<sup>g</sup> Enter in this column the value of butterfat lost because of haulers' or station operators' shortage.

<sup>h</sup> Enter in this column the value of butterfat gained because of haulers' or station operators' inaccurate work.

## BUTTERMAKER'S DAILY RECORD.

Form 4 (for Buttermaker).

The success or failure of any creamery depends largely upon the buttermaker's ability and practice. No buttermaker or creamery company knows the kind of work that is being done unless a detailed record is kept of the daily work. A creamery may show a fair average for a month or a year, but there may be great variations from day to day or month to month; hence the necessity of keeping a daily record. If a buttermaker will keep an accurate daily record of the items on this blank (Form 4) he will soon become proficient in doing the work uniformly and will learn the causes of leaks and be able to prevent them. A buttermaker should at all times be able to show the exact record of all his work.

FORM 4.—Buttermaker's daily record of operations.

Date.	Pounds milk.	Pounds cream.	Milk test.	Cream test.	Pounds butterfat from milk.	Pounds butterfat from cream.	Pounds butterfat from stations or routes. <sup>a</sup>	Total pounds butterfat.	Pounds butterfat in milk and cream sold.	Pounds butter made.	Per cent moisture.	Pounds overrun.	Per cent overrun.	Butter retailed.	Tubs of butter shipped.	Pounds of butter shipped.
Jan. 1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
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22																
23																
24																
25																
26																
27																
28																
29																
30																
31																
Total.																

<sup>a</sup> Enter in this column the actual receipt of butterfat as determined by creamery weight and tests.

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## PATRON'S CREAM BOOK.

Form 5 (for Buttermaker).

Instead of keeping a composite sample of cream for two weeks and testing it at the end of that time, it has been the experience of those handling hand-separator cream that it must be tested the day it is delivered by the patrons in order to get accurate results (except when the cream is delivered sweet); therefore considerable space is necessarily required for keeping this record. Cream should be tested and the pounds of butterfat recorded each day.

The total amount from each patron for the month will be carried to Patron's Book, Form 7.

FORM 5.—*Patron's cream book.*

Date.	(Name of patron.)			(Name of patron.)			(Name of patron.)			(Name of patron.)			(Name of patron.)		
	Pounds.	Test.	Pounds but- terfat.	Pounds.	Test.	Pounds but- terfat.	Pounds.	Test.	Pounds but- terfat.	Pounds.	Test.	Pounds but- terfat.	Pounds.	Test.	Pounds but- terfat.
Jan. 1															
2															
3															
4															
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28															
29															
30															
31															
Total															

## STATION OPERATOR'S DAILY REPORT TO CREAMERY.

Form 6 (for Buttermaker).

Many losses have been sustained by creameries from the lack of knowledge as to what is actually going on at the skimming or cream-receiving station. It is absolutely necessary for the home creamery to know daily what the station operator is doing; therefore the operator should be required to make a detailed report. When the cream is received from the station the buttermaker should weigh and test it, compute the amount of butterfat delivered for the day, and compare it with the report from the station operator. If there is any discrepancy between the two the matter may be looked up and corrected at once.

This form may consist of loose sheets or be made up into pads.

FORM 6.— <i>Station operator's daily report to creamery.</i>	
(Name of creamery)_____	
(Name of station)_____	
(Date)_____190—	
Pounds of milk received.....	_____
Pounds of cream received.....	_____
Test of milk.....	_____
Test of cream.....	_____
Test of skim milk.....	_____
Pounds of cream sent to creamery.....	_____
Test.....	_____
Pounds of fat sent to creamery.....	_____
(Station operator)_____	

## PATRON'S BOOK.

Form 7 (for Secretary).

If the milk is tested twice a month this form will be suitable for the record, but if tested oftener there should be more spaces left for such tests. This will give a concise statement of each patron's account. Only one page is used for each patron for the entire year's business.

In case of daily tests of cream patrons, as recommended in Patron's Cream Book (Form 5), only the monthly or semimonthly totals of cream or butterfat need be brought over to this form.

FORM 7.—*Patron's book.*

(Name of patron) .....

	Pounds milk or cream.	Test.	Pounds but- terfat.	Price per pound.	Total.	Pounds but- ter sold to patrons.	Price per pound.	Amount.	Other charges.	Net amount to patron.
January .....	{1st half .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	{2d half .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February .....	{1st half .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	{2d half .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March .....	{1st half .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	{2d half .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April .....	{1st half .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	{2d half .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
May .....	{1st half .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	{2d half .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
June .....	{1st half .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	{2d half .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
July .....	{1st half .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	{2d half .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
August .....	{1st half .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	{2d half .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
September .....	{1st half .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	{2d half .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
October .....	{1st half .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	{2d half .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
November .....	{1st half .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	{2d half .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
December .....	{1st half .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	{2d half .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grand total .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

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It is important to keep all the items on this form in a separate book, putting the record of only one month on a page.

FORM 8.—Shipping book.

[illegible]

['center  
of  
book.]

[illegible]



## Form 10 (for Secretary).

- This form is for the totals for each month and is taken from the monthly record book. When the last month's business for the year is placed on this sheet and the totals of the twelve months are added it will indicate the business transacted for the year and may be used as the annual report.

FORM 10.—Annual summary of operations.

Name of creamery, \_\_\_\_\_; Post-office, \_\_\_\_\_; State, \_\_\_\_\_.

	Pounds milk.	Total
	Pounds cream.	
Milk, per cent test.	Cream, per cent test.	
Pounds milk.	Pounds butterfat from milk.	
Pounds cream.	Total pounds butterfat.	
Pounds butter made.	Per cent overrun.	
Pounds butter sold to patrons.		

Center  
of  
book.]

Pounds butter sold elsewhere.					
Pounds butter paid for by commission men.					
Pounds butter shipped.					
Pounds shrinkage.					
Average price per pound butter.					
Price paid per pound for butterfat.					
Cost per pound of making butter.					
Total money received.					
Amount paid patrons, including butter sold them.					
Running expenses.					
(Other expenses (repairs, new machinery, etc.).					
Balance or sinking fund.					

Approved:

MES WILSON,  
*Secretary of Agriculture.*

WASHINGTON, D. C., January 15, 1908.